WHAT IS CLAIMED IS:

1. An objective for a microscope, the objective comprising:

an optical axis;

a first objective part for observation; and

a second objective part for illumination, the second objective part being separated from the first objective part and having an illumination axis at an angle to the optical axis of the objective.

2. The objective as defined in Claim 1, further comprising a front lens element group and a deflection element mounted directly above the front lens element group for coupling an illumination beam path into a beam path of the microscope.

3. The objective as defined in Claim 2, wherein the deflection element includes an entrance surface, a deflection surface, and an exit surface, and at least one of the entrance, deflection and exit surfaces is a convexly curved surface.

4. The objective as defined in Claim 2, wherein the deflection element includes an entrance surface, a deflection surface, and an exit surface, and at least one of the entrance, deflection and exit surfaces is a concavely curved surface.

5. The objective as defined in Claim 1, wherein deviations in the optical correction between the a first objective part for observation and the second objective part for illumination are corrected at least in part by way of modified air gaps.

6. The objective as defined in Claim 2, wherein deviations in the optical correction between the a first objective part for observation and the second objective part for illumination are corrected at least in part by way of modified paths in glass of the deflection element.

7. The objective as defined in Claim 1, wherein the first objective part includes optical elements displaceable along the optical axis of the objective and the second objective part includes optical elements displaceable along the illumination axis and correlated to the displaceable optical elements of the first objective part, and wherein a change in position of the displaceable optical elements of the first objective part results in a change in position of the correlated displaceable optical elements of the second objective part.

8. The objective as defined in Claim 7, wherein the displaceable optical elements of the first objective part are mechanically coupled to the displaceable optical elements of the second objective part.

9. The objective as defined in Claim 7, wherein the displaceable optical elements of the first objective part are electro-mechanically coupled to the displaceable optical elements of the second objective part.

10. The objective as defined in Claim 1, further comprising a front lens element group having a first front lens element group part on an observation beam path and a second front lens element group part on an illumination beam path, and means for optically decoupling the second front lens element group from the observation beam path.

11. The objective as defined in Claim 10, wherein the means for optically decoupling the second front lens element group from the observation beam path includes a cover.

12. The objective as defined in Claim 10, wherein the second front lens element group part is associated with the second objective part, and the objective further comprises a deflection element arranged such that an exit surface of the deflection element is coplanar with a surface of the first front lens element group part.

13. The objective as defined in Claim 1, wherein the separation of the first and second objective parts deviates from bisection.